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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	09/818,052	REYNOLDS ET AL.	
	Examiner	Art Unit	
	Chris Parry	2623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *26 September 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-56* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-56* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1-56 have been considered but are moot in view of the new ground(s) of rejection.

In response to applicants argument (Page 18, 2nd ¶, lines 14-17), that Kalluri does not disclose a data stripper for extracting meta data parameters from a data signal where the extracted parameters include a priority level parameter, a geographical region parameter where the processor operates, and a unique processor component identification parameter, the examiner respectfully disagrees.

Kalluri teaches a data stripper (56 – figure 1, Col. 5, lines 43-50) for extracting meta data parameters (i.e., trigger) from a data signal (combined television-trigger signal sent from remote network 10 to broadcast station 50) where the extracted parameters include a priority level parameter (i.e., "original or repeat" field 206; Col. 6, lines 40-49), and a unique processor component identification parameter (i.e., "unit address" field 210; Col. 6, lines 54-56).

Kalluri discloses "original or repeat" field 206 or priority level parameter indicates whether the trigger is new or repeated and if the trigger or meta data parameter is new, the interactive program source 58 reacts to the reception of the new trigger. However, if the trigger is repeated, the interactive program source 58 may or may not react to the trigger depending on the source's current state. Therefore, the trigger or meta data

parameters include an assigned priority level as Kalluri teaches new triggers are assigned a higher priority by the interactive program source 58 over a repeated trigger.

Kalluri discloses "unit address" field 210 or unique processor component identification parameter is provided to direct a trigger or meta data parameter to a particular interactive source or unique processor.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1-56 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kalluri et al. "Kalluri" (US 5,937,331) [cited in last office action] in view of Boylan III et al. "Boylan" (US 6,799,326).

Regarding Claim 1, Kalluri discloses a data modification device comprising: a data modification unit (broadcast station 50 – figure 1) coupled to an incoming data terminal (satellite downlink 52 – figure 1), a local data terminal (interactive program source 58), and a data distribution terminal (satellite uplink 62 – figure 1) (fig.1, Col. 5 lines 7–17), wherein the data modification unit is adapted to selectively combine data from the incoming data terminal (television signal) and the local data terminal (interactive program) in accordance with an instruction set (Col. 5 lines 43–62).

Kalluri further discloses a data stripper (56 – figure 1, Col. 5, lines 43-50) for extracting meta data parameters (i.e., trigger) from a data signal (combined television-trigger signal sent from remote network 10 to broadcast station 50) where the extracted parameters include a priority level parameter (i.e., "original or repeat" field 206; Col. 6, lines 40-49), and a unique processor component identification parameter (i.e., "unit address" field 210; Col. 6, lines 54-56).

Kalluri teaches an evaluator (interactive program source 58 - figure 1) for comparing the extracted meta data parameters to one or more predetermined local meta data parameter values...(Col. 6 lines 54–59, Col. 8 lines 1–4 & 24–28).

Kalluri further teaches an inserter (AVI generation unit 60 – figure 1) for inserting one or more of the predetermined local meta data parameter values into the data signal based on the evaluator comparison (Col. 8 lines 33–37, Col. 9 lines 40–66).

However, Kalluri is silent on disclosing a data stripper for extracting meta data parameters from a data signal wherein the extracted parameters include a geographical region parameter where the processor operates. In an analogous art, Boylan discloses a data modification device, comprising: a data stripper (filter 82 – figure 8) for extracting meta data parameters from a data signal (global data stream of figure 7) wherein the extracted parameters include a geographical region parameter (address 78) where the processor operates (Col. 8, line 35 to Col. 9, line 4).

Boylan further discloses an evaluator (filter 82 –figure 8) for comparing the extracted meta data parameters to one or more predetermined local meta data parameter values tailored to a local market (Col. 8, line 59 to Col. 9, line 4). Therefore, it

would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Kalluri to include a geographical region parameter in a data signal as taught by Boylan for the benefit of providing content that is tailored to the user's geographic location.

As for Claim 2, Kalluri and Boylan disclose, in particular Kalluri teaches wherein the data modification unit comprises: a processor (server) configured to execute the instruction set (Col. 8 lines 18–23).

As for Claim 3, Kalluri and Boylan disclose, in particular Kalluri teaches wherein the data stripper (56) is coupled to the incoming data terminal (52), the processor (server) is coupled to the local data terminal (storage), and the data insertion unit (60) is coupled to the data distribution terminal (62) (fig.1, Col. 8 lines 13–23).

As for Claim 4, Kalluri and Boylan disclose, in particular Kalluri teaches wherein the incoming data (52) terminal is adapted to receive a data signal from a broadcasting source (10) (Col. 4 lines 60–65, Col. 5 43–45).

As for Claims 5-7, Kalluri and Boylan disclose the device of claim 1, but fail to disclose that the incoming data terminal is adapted to receive a data signal that conforms to a TCP-IP standard, an ATVEF standard, and a DOCSIS standard. However, Official notice is taken of the fact that it is well known in the art to adapt a data

terminal of a broadcast headend to receive a data signal conforming to a TCP-IP standard, for the purposes of enabling communication with TCP-IP devices; an ATVEF standard, for the purposes of enabling communication with enhanced television devices; and a DOCSIS standard, for the purposes of enabling communication with DOCSIS devices, respectively. Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the incoming data terminal of Kalluri and Boylan to receive a data signal that conforms to a TCP-IP standard, an ATVEF standard, and a DOCSIS standard, for the purpose of enabling communication with any well known standard such as TCP-IP devices, ATVEF devices, and DOCSIS devices in order to provide compatibility with any interactive television system.

As for Claim 8, Kalluri and Boylan disclose, in particular Kalluri teaches wherein the broadcasting source (10) is an NTSC format (Col. 6 lines 1–9).

As for Claims 9-12, Kalluri and Boylan disclose the device of claim 4, but fail to disclose the broadcasting source is an MPEG-2 format, an HDTV format, a DVD format, and a DBS format. Official notice is taken of the fact that it is well known in the art to employ a broadcasting source of an NTSC format, for the purpose of taking advantage of compression techniques to minimize transmission bandwidth; an HDTV format, for enabling communication with HDTV compatible devices; a DVD format, enabling communication with DVD compatible devices; and a DBS format, for enabling communication with DBS compatible devices. Accordingly, it would have been obvious

to one of ordinary skill in the art at the time the invention was made to modify the broadcasting source of Kalluri and Boylan to include an MPEG-2 format, an HDTV format, a DVD format, and a DBS format, for the purpose conserving transmission bandwidth and enabling communication with HDTV, DVD, and DBS compatible devices in an interactive television system.

As for Claim 13, Kalluri and Boylan disclose, in particular Kalluri teaches wherein the data signal comprises a video data component (television signal) and a meta data component (triggers) (Col. 5 lines 1–5, 18–30).

As for Claim 14, Kalluri and Boylan disclose, in particular Kalluri teaches wherein the local data terminal (58) is adapted to receive a data signal from a storage device (Col. 8 lines 17–22).

As for Claim 15, Kalluri and Boylan disclose, in particular Kalluri teaches wherein the storage device is a recordable disk (Col. 8 lines 17–22).

As for Claim 16, Kalluri and Boylan disclose, in particular Kalluri teaches wherein the storage device is a RAM (Col. 8 lines 28–33).

As for Claim 17, Kalluri and Boylan disclose, in particular Kalluri teaches wherein the storage device is a computer database (server including storage) (Col. 8 lines 28–33).

As for Claim 18, Kalluri and Boylan disclose, in particular Kalluri teaches wherein the data distribution terminal (62) is adapted to transmit a data signal to a distribution channel (Col. 4 lines 65–67, Col. 5 lines 59–62).

As for Claim 19, Kalluri and Boylan disclose, in particular Kalluri teaches wherein the data stripper (56) is adapted to separate an incoming signal into a video data component (television signal) and a meta data component (triggers) (Col. 5 lines 47–52, Col. 8 lines 1–4).

As for Claims 20, 21, 34 and 35, Kalluri and Boylan disclose the device of claim 2 and method of claim 33, but fail to disclose the processor is a reprogrammable device or an ASIC. Official notice is taken of the fact that it is well known in the art to implement a processor as a reprogrammable device, for the purpose of increasing system flexibility; and to implement a processor as an ASIC, for the purpose of improving device efficiency by using a processor designed for a specific application. Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the processor of Kalluri and Boylan as a reprogrammable device, for the purpose of increasing system flexibility; and to implement a processor as an ASIC,

for the purpose of improving device efficiency by using a processor designed for a specific application in the cable headend.

As for Claim 22, Kalluri and Boylan disclose, in particular Kalluri teaches further comprising a receiver (set-top box 502 and television set 504) adapted to display the combined data from the incoming data terminal and the local data terminal (fig.11, Col. 1 lines 15–27, Col. 12 lines 19–32).

As for Claim 23, Kalluri and Boylan disclose, in particular Kalluri teaches wherein the receiver is an NTSC enabled television (television set 502 receives decoded AVI signal, Col. 12 lines 23–25, which is encoded from NTSC source, Col. 6 lines 3–6).

As for Claims 24 and 26, Kalluri and Boylan disclose the device of claim 22, but fail to disclose the receiver is an HDTV enabled television and a DVD enabled television. Official notice is taken of the fact that it is well known in the art to implement a receiver: as an HDTV enabled television, thus enabling high-definition content to be viewed by the user; and a DVD enabled television, thus enabling compatibility with programming provided in DVD format. Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the receiver of Kalluri and Boylan to include an HDTV enabled television and a DVD enabled television, for the benefit of enabling compatibility with programming provided in NTSC format, HDTV format, MPEG-2 format, DVD format, and DBS format.

As for Claim 25, Kalluri and Boylan disclose, in particular Kalluri teaches wherein the receiver is an MPEG2 enabled television (set-top box 504 receives and decodes AVI signal, Col. 12 lines 23–25, which is encoded according to MPEG2, Col. 9 lines 44–47).

As for Claim 27, Kalluri and Boylan disclose, in particular Kalluri teaches, wherein the receiver is a DBS enabled television (set-top box 502 receives digital broadcast from satellite downlink 500, fig.11, Col. 12 lines 19–25).

Regarding Claim 28, Kalluri discloses a data modification system for selective insertion of local meta data into an incoming data stream, the incoming data stream having a video data component and a meta data component, the data modification system comprising: a data modification unit (broadcast station 50 – figure 1) coupled to an incoming data terminal (satellite downlink 52 – figure 1), a local data terminal (interactive program source 58), wherein the data modification unit is adapted to selectively combine data from the incoming data terminal (television signal) and the local data terminal (interactive program) (Col. 5 lines 43–62).

Kalluri further discloses a data stripper (56 – figure 1, Col. 5, lines 43-50) for extracting meta data parameters (i.e., trigger) from the incoming data stream (combined television-trigger signal sent from remote network 10 to broadcast station 50) wherein the extracted parameters include a priority level parameter (i.e., "original or repeat" field

206; Col. 6, lines 40-49), and a unique processor component identification parameter (i.e., "unit address" field 210; Col. 6, lines 54-56).

Kalluri teaches an evaluator (interactive program source 58 - figure 1) for comparing the extracted meta data parameters to one or more predetermined local meta data parameter values...(Col. 6 lines 54–59, Col. 8 lines 1–4 & 24–28).

Kalluri further teaches an inserter (AVI generation unit 60 – figure 1) for inserting one or more of the predetermined local meta data parameter values into the incoming data stream based on the evaluator comparison (Col. 8 lines 33–37, Col. 9 lines 40–66).

However, Kalluri is silent on disclosing a data stripper for extracting meta data parameters from a data signal wherein the extracted parameters include a geographical region parameter where the processor operates. In an analogous art, Boylan discloses a data modification device, comprising: a data stripper (filter 82 – figure 8) for extracting meta data parameters from a data signal (global data stream of figure 7) wherein the extracted parameters include a geographical region parameter (address 78) where the processor operates (Col. 8, line 35 to Col. 9, line 4).

Boylan further discloses an evaluator (filter 82 –figure 8) for comparing the extracted meta data parameters to one or more predetermined local meta data parameter values tailored to a local market (Col. 8, line 59 to Col. 9, line 4). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Kalluri to include a geographical region parameter in a data signal as taught by Boylan for the benefit of providing content that is tailored to the user's geographic location.

As for Claim 29, Kalluri and Boylan disclose, in particular Kalluri teaches, wherein the data modification unit comprises: a data distribution terminal (satellite uplink 62 – figure 1) (fig.1, Col. 5 lines 7–17); and a processor (server) coupled to the local data terminal (Col. 8 lines 18–23).

As for Claim 30, Kalluri and Boylan disclose, in particular Kalluri teaches, wherein the processor is adapted to execute an instruction set (Col. 8, lines 18-23).

Regarding Claim 31, Kalluri discloses a method of selectively modifying a data signal, comprising: receiving a data signal (Col. 5 lines 43–47), the data signal comprising a first data component (television signal) and a second data component (interactive data) (Col. 5 lines 18–30).

Kalluri further discloses separating the first data component from the second data component (Col. 5 lines 43–52, Col. 8 lines 1–4).

Kalluri teaches extracting meta data parameters (triggers) from the data signal (combined television-trigger signal sent from remote network 10 to broadcast station 50) wherein the extracted parameters include a priority level parameter (i.e., "original or repeat" field 206; Col. 6, lines 40-49), and a unique processor component identification parameter (i.e., "unit address" field 210; Col. 6, lines 54-56).

Kalluri teaches determining whether to modify the second data component by comparing the extracted parameters to one or more predetermined local meta data parameter values...(Col. 6 lines 40–49, 54–59, Col. 8 lines 23–27).

Kalluri further discloses retrieving a third data component (interactive program) from a database...(Col. 8 lines 27–36).

Kalluri discloses merging the third data component with the first data component based on the comparison (Col. 9 lines 40–66).

Kalluri further discloses outputting the third data component and the first data component to a distribution terminal (Col. 9 line 66 to Col. 10 line 4).

However, Kalluri is silent on disclosing extracting meta data parameters from the data signal wherein the extracted parameters include a geographical region parameter where the processor operates. In an analogous art, Boylan discloses a method of selectively modifying a data signal comprising: extracting meta data parameters from the data signal (global data stream of figure 7) wherein the extracted parameters include a geographical region parameter (address 78) where the data signal is received (Col. 8, line 35 to Col. 9, line 4).

Boylan further discloses determining whether to modify the second data component by comparing the extracted meta data parameters to one or more predetermined local meta data parameter values tailored to a local market (Col. 8, line 59 to Col. 9, line 4).

Boylan teaches retrieving a third data component from a database, wherein the third data component includes local meta data from a local meta data center

represented by the local meta data parameter values tailored to a local market (Col. 9, lines 20-61). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Kalluri to include a geographical region parameter in a data signal as taught by Boylan for the benefit of providing content that is tailored to the user's geographic location.

As for Claim 32, Kalluri and Boylan disclose, in particular Kalluri teaches, wherein the first data component comprises a video component (television signal) and the second data component comprises a meta data component (interactive data) (Col. 5 lines 20–24).

As for Claim 33, Kalluri and Boylan disclose, in particular Kalluri teaches, wherein determining whether to modify the second data component is a logic function programmed into a processor (server) (Col. 8 lines 12–28).

As for Claim 36, Kalluri and Boylan disclose, in particular Kalluri teaches, wherein the third data component replaces the second data component (Col. 11 lines 37–51).

As for Claim 37, Kalluri and Boylan disclose, in particular Kalluri teaches, where the third data component is a local meta data component (i.e., interactive program inserted at distribution point (50) other than broadcast source (10), fig.1, Col. 4 lines 56–65).

Regarding Claim 38, Kalluri discloses a method of selectively modifying a data signal, comprising: receiving a data signal (Col. 5 lines 43–47), the data signal comprising a first data component (television signal) and a second data component (interactive data) (Col. 5 lines 18–30).

Kalluri further discloses separating the first data component from the second data component (Col. 5 lines 43–52, Col. 8 lines 1–4), wherein the second data component further comprises meta data parameters (triggers) wherein the parameters include a priority level parameter (i.e., "original or repeat" field 206; Col. 6, lines 40-49), and a unique processor component identification parameter (i.e., "unit address" field 210; Col. 6, lines 54-56).

Kalluri teaches determining whether to modify the second data component by comparing the second data component parameters to one or more predetermined local meta data parameter values...(Col. 6 lines 40–49, 54–59, Col. 8 lines 23–27).

Kalluri discloses if modification of the second data component is not required, then forwarding the second data component; merging the forwarded second data component with the first data component; and outputting the forwarded second data component and the first data component to a distribution terminal (Col. 9, lines 17-21 & 64-67, Col. 10, lines 2-4).

Kalluri further discloses if modification of the second data component is required, then retrieving a third data component (interactive program) from a database...(Col. 5 lines 47–50); forwarding the third data component (Col. 5, lines 53-57); merging the

third data component with the first data component based on the comparison (Col. 5 lines 57-62); and outputting the third data component and the first data component to a distribution terminal (Col. 5, lines Col. 5, lines 57-62).

However, Kalluri is silent on disclosing extracting meta data parameters from the data signal wherein the extracted parameters include a geographical region parameter where the processor operates. In an analogous art, Boylan discloses a method of selectively modifying a data signal comprising: separating the first data component (data 80 – figure 7) from the second data component (ad data 74 – figure 7) wherein the second data component further comprises meta data parameters (addresses 78 – figure 7) wherein the parameters include a geographical region parameter (address 78) where the data signal is received (Col. 8, line 35 to Col. 9, line 4).

Boylan further discloses determining whether to modify the second data component by comparing the second data component parameters to one or more predetermined local meta data parameter values tailored to a local market (Col. 8, line 59 to Col. 9, line 4).

Boylan teaches if modification of the second data component is required, then retrieving a third data component from a database, wherein the third data component includes local meta data from a local meta data center represented by the local meta data parameter values tailored to a local market (Col. 9, lines 20-61). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Kalluri to include a geographical region parameter in a data signal as taught

by Boylan for the benefit of providing content that is tailored to the user's geographic location.

As for Claim 39, Kalluri and Boylan disclose, in particular Kalluri teaches wherein the first data component comprises a video data component, the second data component comprises a meta data component, and the third data component comprises a local meta data component (see Kalluri as applied to claims 32 and 37, above).

As for Claim 40, Kalluri and Boylan disclose, in particular Kalluri teaches wherein the third data component replaces the second data component (see Kalluri as applied to claim 36, above).

Regarding Claim 41, Kalluri discloses a data modification system for selective insertion of local meta data into a data stream, the data stream having a video data component and a meta data component (television-trigger signal, the data modification system comprising: a data stripper (56 – figure 1, Col. 5, lines 43-50) for extracting meta data parameters (i.e., trigger) from the data stream (combined television-trigger signal sent from remote network 10 to broadcast station 50) wherein the extracted parameters include a priority level parameter (i.e., "original or repeat" field 206; Col. 6, lines 40-49), and a unique processor component identification parameter (i.e., "unit address" field 210; Col. 6, lines 54-56).

Kalluri discloses a data storage device (58 –figure 1) for storing local meta data; the processor coupled to the data storage device and the data stripper (figure 1), the processor for comparing the extracted meta data parameters to one or more predetermined local meta data parameter values...(Col. 6 lines 54-59, Col. 8 lines 1-28).

Kalluri further teaches a data insertion unit (AVI generation unit 60 – figure 1) coupled to the processor, the data insertion unit for inserting one or more of the predetermined local meta data parameter values into the video broadcast signal based on the comparison (Col. 8 lines 33–37, Col. 9 lines 40–66).

However, Kalluri is silent on disclosing a data stripper for extracting meta data parameters from a data signal wherein the extracted parameters include a geographical region parameter where the processor operates. In an analogous art, Boylan discloses a data modification device, comprising: a data stripper (filter 82 – figure 8) for extracting meta data parameters from a data signal (global data stream of figure 7) wherein the extracted parameters include a geographical region parameter (address 78) where the processor operates (Col. 8, line 35 to Col. 9, line 4).

Boylan further discloses the processor coupled to the data storage device and the data stripper, the processor for comparing the extracted meta data parameters to one or more predetermined local meta data parameter values tailored to a local market (Col. 8, line 57 to Col. 9, line 4). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Kalluri to include a

geographical region parameter in a data signal as taught by Boylan for the benefit of providing content that is tailored to the user's geographic location.

Regarding Claim 42, Kalluri discloses a data modification system for selective insertion of local meta data into a data stream, the data stream having a video data component and a meta data component (television-trigger signal, the data modification system comprising: a means for extracting (56 – figure 1, Col. 5, lines 43-50) meta data parameters (i.e., trigger) from the data stream (combined television-trigger signal sent from remote network 10 to broadcast station 50) wherein the extracted parameters include a priority level parameter (i.e., "original or repeat" field 206; Col. 6, lines 40-49), and a unique processor component identification parameter (i.e., "unit address" field 210; Col. 6, lines 54-56).

Kalluri discloses a means (58 –figure 1) for storing local meta data; the means for comparing the extracted meta data parameters to one or more predetermined local meta data parameter values...(Col. 6 lines 54-59, Col. 8 lines 1-28).

Kalluri further teaches a means for inserting (AVI generation unit 60 – figure 1) one or more of the predetermined local meta data parameter values into the data stream signal based on the comparison (Col. 8 lines 33–37, Col. 9 lines 40–66).

However, Kalluri is silent on disclosing a data stripper for extracting meta data parameters from a data signal wherein the extracted parameters include a geographical region parameter where the processor operates. In an analogous art, Boylan discloses a data modification system, comprising: a means for extracting (filter 82 – figure 8) meta

data parameters from a data signal (global data stream of figure 7) wherein the extracted parameters include a geographical region parameter (address 78) where the processor operates (Col. 8, line 35 to Col. 9, line 4).

Boylan further discloses the means for comparing the extracted meta data parameters to one or more predetermined local meta data parameter values tailored to a local market (Col. 8, line 57 to Col. 9, line 4).

Boylan teaches means for inserting (AVI generation unit 60 – figure 1) one or more of the predetermined local meta data parameter values into the data stream signal based on the comparison of the extracted parameters to the one or more predetermined local meta data parameter values tailored to a local market (Col. 9, lines 20-54). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Kalluri to include a geographical region parameter in a data signal as taught by Boylan for the benefit of providing content that is tailored to the user's geographic location.

Regarding Claim 43, Kalluri discloses a computer readable medium (server (58) local memory, Col. 8 lines 27–33) having computer-executable instructions (operations, Col. 8 lines 23–27, 52–54) for performing the claimed method as applied to claim 38, above.

Regarding claim 44, Kalluri discloses a method of controlling a display of enhanced (interactive) television content for viewers from a distribution point (broadcast

station 50), comprising: receiving a broadcast signal (Col. 5 lines 43–45) comprising a video component (television signal) and a generic meta data component (interactive data), the generic meta data component comprising triggers (Col. 5 lines 18–30).

Kalluri teaches extracting meta data parameters (trigger) from the generic meta data component (Col. 5 lines 45–47) wherein the extracted parameters include a priority level parameter (i.e., "original or repeat" field 206; Col. 6, lines 40-49), and a unique processor component identification parameter (i.e., "unit address" field 210; Col. 6, lines 54-56).

Kalluri teaches evaluating the generic meta data component to determine whether to make an insertion of local meta data (interactive program) into the broadcast signal by comparing the extracted parameters to one or more predetermined local meta data parameter values...(Col. 6 lines 40–49, 54–59, Col. 8 lines 23–27).

Kalluri discloses inserting the local meta data into the broadcast signal in response to a determination in the evaluating step to make the insertion (Col. 8 lines 23–37), to obtain a modified broadcast signal (AVI signal) (Col. 9 lines 53–66); and broadcasting the modified broadcast signal to the viewers...(Col. 10 lines 1–4, Col. 4 lines 65–67).

However, Kalluri is silent on disclosing a data stripper for extracting meta data parameters from a data signal wherein the extracted parameters include a geographical region parameter where the broadcast signal is received. In an analogous art, Boylan discloses extracting (filter 82 – figure 8) meta data parameters from a generic meta data component (global data stream of figure 7) wherein the extracted parameters include a

geographical region parameter (address 78) where the broadcast signal is received (Col. 8, line 35 to Col. 9, line 4).

Boylan further discloses the evaluating the generic meta data component to determine whether to make an insertion of local meta data into the broadcast signal by comparing the extracted parameters to one or more predetermined local meta data parameter values tailored to a local market (Col. 8, line 57 to Col. 9, line 4).

Boylan teaches broadcasting the modified signal to the viewers in the local market (Col. 9, lines 20-46). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Kalluri to include a geographical region parameter in a data signal as taught by Boylan for the benefit of providing content that is tailored to the user's geographic location.

As for Claim 45, Kalluri and Boylan disclose, in particular Kalluri teaches wherein the local meta data (interactive program) comprises triggers (signal modules) (see U.S. Patent No. 5,448,568, Col. 10 line 54 to Col. 11, line 11, incorporated by reference in Kalluri (Col. 10 lines 27–32)).

As for Claim 46, Kalluri and Boylan disclose, in particular Kalluri teaches wherein: the generic meta data (interactive television content provided by originator, Col. 1 lines 57–63) further comprises content (represented as interactive programs, Col. 8 lines 13–23); and the local meta data comprises triggers (signal modules) and content (interactive program data) (see Kalluri as applied to claim 45, above).

As for Claim 47, Kalluri and Boylan disclose, in particular Kalluri teaches repeating the evaluating step (Col. 8 lines 23–37), and broadcasting the broadcast signal to the viewer in response to a determination in the repeated evaluating step to not make the insertion (Col. 9, line 17-21).

As for Claim 48, Kalluri and Boylan disclose, in particular Kalluri teaches wherein the inserting step comprises: substituting the local meta data for the generic meta data in the broadcast signal in response to a determination in the evaluating step to make the insertion, to obtain the modified broadcast signal (Col. 11 lines 37–52).

As for Claim 49, Kalluri and Boylan disclose, in particular Kalluri teaches stripping the generic meta data component from the broadcast signal prior to the evaluating step (Col. 5 lines 45–52).

As for Claim 50, Kalluri and Boylan disclose, in particular Kalluri teaches repeating the evaluating step (Col. 8 lines 22–28), inserting the generic meta data back into the broadcast signal in response to a determination in the repeated evaluating step to not make the insertion, to obtain a reconstructed broadcast signal; and broadcasting the reconstructed broadcast signal to viewers (Col. 9, lines 17-21 & 64-67, Col. 10, lines 2-4).

As for Claim 51, Kalluri and Boylan disclose the method of claim 44 further comprising: characterizing the distribution point by a local parameter that includes a priority level parameter (Kalluri: "original or repeat" field 206; Col. 6, lines 40-49), geographical region parameter (Boylan: address 78 – figure 7) (Col. 8, line 35 to Col. 9, line 4) and a unique processor component identification parameter (Kalluri: "unit address" field 210; Col. 6, lines 54-56).

Kalluri and Boylan further disclose wherein the generic meta data component further comprises content (interactive program control information) and a plurality of announcements (program queue commands) (Col. 8 lines 28–37), each of which includes a generic parameter selected from priority level parameter (Kalluri: "original or repeat" field 206; Col. 6, lines 40-49), geographical region parameter (Boylan: address 78 – figure 7) (Col. 8, line 35 to Col. 9, line 4) and a unique processor component identification parameter (Kalluri: "unit address" field 210; Col. 6, lines 54-56); and wherein the evaluating step comprises comparing values of the generic parameters and the local parameter (Col. 6 lines 40–49, 49–50, Col. 8 lines 24–28).

As for Claim 52, Kalluri and Boylan disclose the method of claim 51 but fail to disclose wherein the generic parameters and the local parameter are defined by options established by an Advanced Television Enhancement Forum specification. Official notice is taken of the fact that it is well known in the art to define enhanced television content according to an ATVEF specification, for the benefit of ensuring compatibility with ATVEF devices. Accordingly, it would have been obvious to one of ordinary skill in

the art at the time the invention was made to modify the system of Kalluri and Boylan to include the generic parameters and the local parameters are defined by options established by an Advanced Television Enhancement Forum specification, for the benefit of ensuring compatibility with ATVEF devices.

Regarding Claim 53, Kalluri discloses a system for controlling a display of enhanced television content for viewers from a distribution point, the system comprising: a broadcast signal receiver (52 – figure 1) for receiving a broadcast signal comprising a video component and a generic meta data component (interactive data), the generic meta data component comprising triggers (fig.1, Col. 5 lines 18–30, 43–52, Col. 7 lines 47–53).

Kalluri discloses a data stripper (56 – figure 1) for extracting meta data parameters (trigger) from the generic meta data component wherein the extracted parameters include a priority level parameter (i.e., "original or repeat" field 206; Col. 6, lines 40-49), and a unique processor component identification parameter (i.e., "unit address" field 210; Col. 6, lines 54-56).

Kalluri further discloses a local meta data center (58 – figure 1) for storing local meta data of particular relevancy to the viewers...(Col. 8 lines 12–23); a first processor component (58 – figure 1) coupled to the broadcast signal receiver for evaluating the generic meta data component to determine whether to make an insertion of local meta data (interactive program) into the broadcast signal by comparing the extracted

parameters to one or more predetermined local meta data parameter values (Col. 6 lines 54–59, Col. 8 lines 1–4, 24–28);

Kalluri teaches a second processor component (58 – figure 1) coupled to the local meta data center for selecting the local meta data in response to a signal from the first processor component to make the insertion based on the comparison of the extracted parameters to the one or more predetermined local meta data parameter values (Col. 8 lines 28–37).

Kalluri discloses an inserter (60 – figure 1) coupled to the second processor component for receiving the local meta data, and further coupled to the broadcast signal receiver for inserting the local meta data into the broadcast signal to obtain a modified broadcast signal (Col. 9 lines 40–66); and a transmitter (62- figure 1) coupled to the inserter for broadcasting the modified broadcast signal to the viewers (Col. 10 lines 1–4).

However, Kalluri is silent on disclosing a data stripper for extracting meta data parameters from a data signal wherein the extracted parameters include a geographical region parameter where the broadcast signal is received. In an analogous art, Boylan discloses a data stripper (filter 82 – figure 8) for extracting meta data parameters from the generic meta data component (global data stream of figure 7) wherein the extracted parameters include a geographical region parameter (address 78 – figure 7) where the broadcast signal is received (Col. 8, line 35 to Col. 9, line 4).

Boylan further discloses a local meta data center (57 – figure 5) for storing local media data of particular relevancy to the viewers in a local market (Col. 9, lines 55-61).

Boylan teaches transmitter (52 – figure 11) coupled to the inserter (94 – figure 11) for broadcasting the modified broadcast signal to the viewers in the local market (figure 11; Col. 9, lines 32-61). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Kalluri to include a geographical region parameter in a data signal as taught by Boylan for the benefit of providing content that is tailored to the user's geographic location.

As for Claim 54, Kalluri and Boylan disclose, in particular Kalluri teaches wherein the broadcast signal receiver comprises a stripper (56 – figure 1) for removing the genetic meta data component from the broadcast signal and furnishing the generic meta data component to the first processor component (Col. 5 lines 44–52, Col. 11 lines 37–42).

As for Claim 55, Kalluri and Boylan disclose, in particular Kalluri teaches a third processor component (data-to-VBI conversion unit 456) coupled to the stripper for selecting the generic meta data component in response to a signal from the first processor component to not make the insertion (fig.10, Col. 10, lines 60–65, Col. 11 lines 8–12); wherein the inserter comprises a component (VBI digital encoder 458) for receiving the generic meta data from the third processor component and inserting the generic meta data back into the broadcast signal (Col. 11 lines 12–19).

4. Claim 56 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kalluri in view of Boylan in view of Zigmond et al. "Zigmond" (US 6,400,407) [cited in last office action].

Regarding Claim 56, Kalluri discloses a system for controlling a display of enhanced television content for a first group of viewers, the system comprising: a first distribution point (50 – figure 1) comprising: a first broadcast signal receiver (52 – figure 1) for receiving a broadcast signal comprising a video component and a first meta data component (interactive data), the first meta data component comprising triggers (fig.1, Col. 5 lines 18–30, 43–52, Col. 7 lines 47–53).

Kalluri discloses a first local meta data center (58 – figure 1) for storing the first local meta data of particular relevancy to a second group of viewers that include the first group of viewers (Col. 8, lines 12-22).

Kalluri discloses a data stripper (56 – figure 1) for extracting first meta data parameters (trigger) from the first meta data component wherein the extracted parameters include a priority level parameter (i.e., "original or repeat" field 206; Col. 6, lines 40-49), and a unique processor component identification parameter (i.e., "unit address" field 210; Col. 6, lines 54-56).

Kalluri further discloses a first processor component (58 – figure 1) coupled to the first broadcast signal receiver for comparing the first extracted meta data parameters to one or more predetermined first local meta data parameter values to determine whether to make an insertion of local meta data (interactive program) into the broadcast signal (Col. 6 lines 54–59, Col. 8 lines 1–4, 24–28);

Kalluri teaches a second processor component (58 – figure 1) coupled to the first local meta data center for selecting the local meta data in response to a signal from the first processor component to make the insertion of the first local meta data (Col. 8 lines 28–37).

Kalluri discloses a first inserter (60 – figure 1) coupled to the second processor component for receiving the first local meta data, and further coupled to the first broadcast signal receiver for inserting the first local meta data into the broadcast signal to obtain a first modified broadcast signal (Col. 9 lines 40–66); and a transmitter (62-figure 1) coupled to the first inserter for broadcasting the first modified broadcast signal to the viewers (Col. 10 lines 1–4).

However, Kalluri is silent on disclosing a data stripper for extracting meta data parameters from a data signal wherein the extracted parameters include a geographical region parameter where the broadcast signal is received. In an analogous art, Boylan discloses a first data stripper (filter 82 – figure 8) for extracting first meta data parameters from the first meta data component (global data stream of figure 7) wherein the extracted parameters include a geographical region parameter (address 78 – figure 7) where the broadcast signal is received (Col. 8, line 35 to Col. 9, line 4). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Kalluri to include a geographical region parameter in a data signal as taught by Boylan for the benefit of providing content that is tailored to the user's geographic location.

Kalluri and Boylan together disclose a system for controlling a display of enhanced television content for a first group of viewers comprising the claimed first distribution point as applied to claim 55, above. Kalluri further discloses that the first modified broadcast signal may be transmitted to a subsequent distribution link (Col. 4 lines 65–67). However, Kalluri and Boylan fail to disclose the subsequent distribution link includes a second distribution point as claimed.

In an analogous art, Zigmond discloses an enhanced television broadcast system (Col. 3 lines 46-65) comprising first and second distribution points (e.g., broadcaster affiliate and cable provider), wherein each distribution point: receives a broadcast signal including a video and generic (upstream) metadata, determines whether to insert local metadata, inserts the local metadata into the broadcast signal based on the determination, and transmits the modified broadcast signal to a subsequent distribution point (Col. 8 lines 37–63), thus allowing each distribution point to provide supplemental content that specifically enhances the current programming reaching its viewers (Col. 3 lines 46–65).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the subsequent distribution link of Kalluri and Boylan to include the claimed second distribution point, as taught by Zigmond, for the benefit of enabling further content enhancement specific to viewers on the subsequent distribution link.

Conclusion

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chris Parry whose telephone number is (571) 272-8328. The examiner can normally be reached on Monday through Friday, 8:00 AM EST to 4:00 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris Grant can be reached on (571) 272-7294. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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/CP/

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